

CLAIMS

1. Network apparatus management Protocol (NEAP), the said NEAP uses a  
network apparatus management tool to establish a one-client-multi-server mode  
together with all the network apparatuses on the same network, thereby the said  
5 management tool plays the role of one-client and the other network apparatus on the  
same network play the role of multi-server to make the said every network apparatus,  
through the said NEAP, assign a special communication port number in the header of a  
User Datagram Protocol (UDP) as the port number, also to make the request packet of  
the client end to work as the UDP destination port number based on the UDP  
communication port number assigned by the said NEAP, and to set the UDP source  
port number according to the mechanism at the client end, therefore, after receiving the  
said request packet and accomplishing the operation requested to be conducted, the  
said every network apparatus exchanges the said UDP destination port number and the  
said UDP source port number, then transmits it to the client end by broadcasting to  
enable the said client end to easily achieve the purpose of managing all the said  
network apparatuses on the same network..

2. Network apparatus management protocol according to Claim 1, wherein the  
columns for defining data of the packet code and server MAC address are included in  
the header of the said NEAP, wherein the said packet code can be divided into three  
20 major codes of discovering, getting and setting according to the different destination  
addresses; the said server MAC address is used to represent the server at the client end  
requesting for conducting the operations of discovering, assigning getting or setting.

3. Network apparatus arrangement protocol according to Claim 2, wherein the  
data of the said NEAP includes a series of data columns for defining attributes, thereby  
25 the said attribute data is utilized to describe the data value to be gotten or set.

4. Network apparatus arrangement protocol according to Claim 3, wherein, when  
the client end tends to conduct data getting toward the said server, the said client end  
can sequentially fill in the data item to be gotten into the said data column according to  
its attribute type, then send out the request packet; after the said packet being received  
5 by the said server, the said server sequentially decodes the attribute data in the said  
data column, fills the data in the said server corresponding to the said attribute type in  
the attribute value column of the said packet, and transmits the said packet back to the  
client end to enable the client end to easily get the data in the said server.

5. Network apparatus arrangement protocol according to Claim 3, wherein, when  
10 the said client end tends to conduct data setting toward the said server, the said client  
end can first sequentially fill the data item to be set in the said data column according  
to its attribute type, then send out the said request packet; after the said request packet  
being received by the said server, the said server sequentially decodes the attribute data  
in the said data column and sets the set data in the attribute value column to the  
corresponding position in the said server according to its attribute type to enable the  
said client end to easily accomplish the setting job for the said server.

6. Network apparatus arrangement protocol according to Claim 3, wherein,  
before sending out the said request packet, the said client end first adds the password to  
the entire request packet excluding the columns of authenticator and server MAC  
20 address according to a set method of code encryption, then fills it in the said  
authenticator column and sends the said request packet out from the client end; after  
the request packet being received by the said every server, the said every server uses  
the same code encryption method to encrypt the entire request packet into data  
according to the preset password provided by the said every server, compares it with  
25 the data in the authenticator column in the said request packet; if both are the same, the

operation of getting or setting is conducted; otherwise, the request of the said packet is rejected.

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